

**UNITED STATES COURT OF APPEALS  
FOR THE ELEVENTH CIRCUIT**

CENTER FOR BIOLOGICAL  
DIVERSITY,

*Petitioner,*

v.

UNITED STATES  
ENVIRONMENTAL PROTECTION  
AGENCY; and

LEE ZELDIN, in his official capacity  
as Administrator of the United States  
Environmental Protection Agency,

*Respondents.*

Case No. 25-10515

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**RESPONDENTS' NOTICE OF FILING OF CERTIFIED INDEX TO THE  
ADMINISTRATIVE RECORD**

Pursuant to Federal Rule of Appellate Procedure 17(b)(1)(B), Respondents hereby submit the attached certified index to the administrative record for the United States Environmental Protection Agency's final action taken under the Clean Air Act, entitled "Notice of Approval for Other Use of Phosphogypsum." 89 Fed. Reg. 104,535 (Dec. 23, 2024), that is the subject of the petition for review in the above-captioned case.

Dated: April 15, 2025.

Respectfully submitted,

ADAM R.F. GUSTAFSON  
Acting Assistant Attorney General  
Environment & Natural Resources Division

/s/ Mario A. Luna  
MARIO A. LUNA  
United States Department of Justice  
Environment & Natural Resources Division  
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*Counsel for Respondents*

### **CERTIFICATE OF SERVICE**

I hereby certify that the foregoing Respondents' Notice of Filing of Certified Index to the Administrative Record has been filed with the Clerk of the Court for the United States Court of Appeals for the Eleventh Circuit this 15th day of April, 2025, using the CM/ECF System, which will electronically serve all counsel of record registered to use the CM/ECF system.

/s/ Mario A. Luna  
Mario A. Luna

**UNITED STATES COURT OF APPEALS  
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**CERTIFIED INDEX TO THE ADMINISTRATIVE RECORD**

I, Andrea Cherepy, am the acting Director of the Radiation Protection Division, within the Office of Radiation and Indoor Air, within the Office of Air and Radiation of the United States Environmental Protection Agency (EPA).

I certify to the best of my knowledge and belief that the attached index lists the documents constituting the administrative record for the final action entitled “Notice of Approval for Other Use of Phosphogypsum,” 89 Fed. Reg. 104,535 (Dec. 23, 2024), that is the subject of the petition for review in the above-captioned case.

Dated this 15 day of April 2025.

ANDREA CHEREPY Digitally signed by ANDREA CHEREPY  
Date: 2025.04.15 16:34:45 -04'00'

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ANDREA CHEREPY  
Acting Director  
Radiation Protection Division  
Office of Radiation and Indoor Air  
Office of Air and Radiation  
U.S. Environmental Protection Agency

**United States Environmental Protection Agency (EPA)**  
**“Notice of Approval for Other Use of Phosphogypsum”**  
**89 Fed. Reg. 104,535 (Dec. 23, 2024)**  
**Administrative Record Index**  
[Docket No. EPA-HQ-OAR-2024-0446](#)

**Notes:** Certain documents are not available on the electronic docket. The EPA has provided hyperlinks to these documents in the index below. Many of these documents have been posted to the EPA’s Phosphogypsum webpage: <https://www.epa.gov/radiation/phosphogypsum>. Such documents are labeled “\*Available on EPA’s website\*” and include the above hyperlink to the material. In addition, certain documents that had already been posted to Docket No. EPA-HQ-OAR-2020-0442 are available at <https://www.regulations.gov/docket/EPA-HQ-OAR-2020-0442>. Such documents are labeled “\*Available at Docket ID EPA-HQ-OAR-2020-0442\*” and include the above hyperlink to the material. Copyrighted materials that are not already publicly available are not posted in the online docket. Such materials are labeled “\*Copyrighted\*” in this index. A copy of all such materials has been retained as part of the EPA’s record for this action.

Index Number	Document Description	Date
Federal Register Approval Documents		
1.1	Pending Approval for Other Use of Phosphogypsum. Federal Register (89 FR 81910) (FRL- 12268-01-OAR)	10/09/2024
1.2	Pending Approval for Other Use of Phosphogypsum. Federal Register (89 FR 88762) (FRL-12398-01-OAR)	11/08/2024
1.3	Approval for Other Use of Phosphogypsum. Federal Register (89 FR 104535) (FRL-12501-01-OAR)	12/23/2024
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2.1	Request from The Mosaic Company to Use Phosphogypsum in Road Construction Pilot (August 2023)	08/23/2023
2.1.1	<u>Attachment</u> : Letter from Arcadis, Phosphogypsum, Road Pilot Study, Radiological Risk Review, Update	08/23/2023
2.1.2	<u>Attachment</u> : Original March 2022 Request from The Mosaic Company to Use Phosphogypsum in Small-Scale Pilot Project on Private Land	08/23/2023
2.1.3	<u>Attachment</u> : March 17, 2023 letter from EPA on completeness determination for original March 2022 Mosaic request	08/23/2023
2.2	February 7, 2024 Response to EPA Questions from Mosaic	02/07/2024
2.2.1	<u>Attachment</u> : Report: Beneficial Use of Mosaic Phosphogypsum, Prepared for Mosaic Fertilizer, LLC, February 7, 2024. Author: Timothy G. Townsend et al., University of Florida.	02/07/2024

2.2.2	<u>Attachment</u> : Report: Phosphogypsum for Secondary Road Construction. Report prepared by University of Miami, Florida Institute of Phosphate Research, Publication Numbers 01-033-077, 01-041-077, June 1989.	02/07/2024
2.2.3	<u>Attachment</u> : Jiahui Men, Yiming Li, Peifeng Cheng, Zhanming Zhang, "Recycling phosphogypsum in road construction materials and associated environmental considerations: A review", Heliyon, Volume 8, Issue 11, 2022, e11518. *Copyrighted*	02/07/2024
2.2.4	<u>Attachment</u> : Kate D. Weiksnar, Kyle A. Clavier, Nicole M. Robey, Timothy G. Townsend, "Changes in trace metal concentrations throughout the phosphogypsum lifecycle", Science of The Total Environment, Volume 851, Part 1, 2022, 158163. *Copyrighted*	02/07/2024
2.2.5	<u>Attachment</u> : Kate D. Weiksnar, Timothy G. Townsend, "Enhancing the chemical performance of phosphogypsum as a road base material by blending with common aggregates", Resources, Conservation and Recycling, Volume 200, 2024, 107300. *Copyrighted*	02/07/2024
2.2.6	<u>Attachment</u> : Kate D. Weiksnar, Kyle A. Clavier, Steven J. Laux, Timothy G. Townsend, "Influence of trace chemical constituents in phosphogypsum for road base applications: A review", Resources, Conservation and Recycling, Volume 199, 2023. *Copyrighted*	02/07/2024
2.2.7	<u>Attachment</u> : Raja Zmemla, Mounir Benjdidia, Ikram Naifar, Chaouki Sadik, Boubaker Elleuch, Ali Sdiri. "A phosphogypsum-based road material with enhanced mechanical properties for sustainable environmental remediation", Environ Prog Sustainable Energy, 2022, Volume 41, Issue 1, e13732. *Copyrighted*	02/07/2024
2.3	May 20, 2024 letter from EPA on completeness determination for revised Mosaic request	05/20/2024
2.4	Letter from EPA issuing pending approval of the request from Mosaic Fertilizer, LLC	10/01/2024
2.5	Review of the Small-Scale Road Pilot Project on Private Land in Florida Submitted by Mosaic Fertilizer, LLC.	10/01/2024
2.6	Response to Comments: Request for Approval of Use of Phosphogypsum in a Small-Scale Road Pilot Project on Private Land in Florida Submitted by Mosaic, LLC	12/11/2024
2.7	December 20, 2024 letter from EPA on final approval for revised Mosaic request	12/20/2024
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3.2.1	<u>Attachment</u> : CBD Extension Request Letter	10/16/2024

3.3	Comment submitted by American Indian Movement Florida Chapter	10/18/2024
3.3.1	<u>Attachment</u> : Jiahui Men, Yiming Li, Peifeng Cheng, Zhanming Zhang, Recycling Phosphogypsum in Road Construction Materials and Associated Environmental Considerations: A Review, Journal, Open Access, November 1, 2022.	10/18/2024
3.3.2	<u>Attachment</u> : Phosphogypsum Factsheet, Riverview, Florida Phosphogypsum Stack.	10/18/2024
3.4	Comment submitted by Earthjustice	10/21/2024
3.5	Comment submitted by Sierra Club Loxahatchee Group	10/19/2024
3.6	Comment submitted by Congressman Maxwell Alejandro Frost, House of Representatives, Congress of the United States	11/01/2024
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3.18	Comment submitted by Center for Biological Diversity et al. "Other submitters: Atchafalaya Basinkeeper, Bayou City Waterkeeper, Center for Biological Diversity, Cherokee Concerned Citizens, Earthjustice, Earthworks, Environment America, Environment Florida, Freshwater Future, Healthy Gulf, Healthy Ocean Coalition, Inland Ocean Coalition, Kentucky Waterways Alliance, League of Conservation Voters, ManaSota-88, Inc. Minorities in Shark Sciences, Our Santa Fe River, Inc., People for Protecting Peace River, Portneuf Resource Council, RISE St. James Louisiana, Sierra Club, Tampa Bay Waterkeeper".	11/22/2024
3.18.1	<u>Attachment</u> : Comment submitted by Center for Biological Diversity et al	11/22/2024
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3.21.4	<u>Attachment</u> : Comments and Response to Comments, NESHAPS, National Emission Standards for Radon Emissions from Phosphogypsum Stacks, 40 CFR Part 61 National Emission Standards for Hazardous Air Pollutants [EPA 402-R-98-007] Office of Radiation and Indoor Air, USEPA, November 1998.	11/23/2024
3.21.5	<u>Attachment</u> : Potential Uses Of Phosphogypsum And Associated Risks, Background Information Document, [402-R92-002] Air and Radiation, USEPA May 1992.	11/23/2024

3.21.6	<u>Attachment</u> : Technical Review of the Fertilizer Institute Risk Assessment for Additional Use of Phosphogypsum in Road Base, prepared by SC&A, Inc. for Office of Radiation and Indoor Air, USEPA, June 10, 2020.	11/23/2024
3.21.7	<u>Attachment</u> : A Long-Term Study of Radon and Airborne Particulates at Phosphogypsum Stacks in Central Florida, [EPA 520/5-88-021], Eastern Environmental Radiation Facility USEPA, October 1988.	11/23/2024
3.21.8	<u>Attachment</u> : Is the Slag Mountain by the Yangtze River Solid Waste Unpolished Jade? Investigation on the Pollution and Comprehensive Utilization of Phosphogypsum Storage December 21, 2020. (Copyrighted)	11/23/2024
3.21.9	<u>Attachment</u> : Liner tear confirmed at Mosaic's New Wales Gypstack Florida Regulators Say, Tampa Bay Times (Copyrighted)	11/23/2024
3.21.10	<u>Attachment</u> : ABC Article: Florida Fertilizer Plant Sinkhole Reportedly Leaks 215 Million Gallons of Radioactive Water Into Aquifer. September 16, 2016.	11/23/2024
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3.87	Comment submitted by Christopher Lish	11/07/2024
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3.91	Mass Comment Campaign sponsoring organization unknown. Sample attached. 346 similar comments were received for this campaign.	11/03/2024
3.92	Comment submitted by Surfrider Foundation.	11/23/2024
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Additional Supporting Documents		
4.1	U.S. Environmental Protection Agency. Potential Uses of Phosphogypsum and Associated Risks: Background Information Document, EPA 402-R92-002, May 1992. <i>*Available at Docket ID EPA-HQ-OAR-2020-0442*</i>	05/1992
4.2	U.S. Environmental Protection Agency. "Applying to EPA for Approval of Other Uses of Phosphogypsum: Preparing and Submitting a Complete Petition Under 40 CFR 61.206, A Workbook." December 2005. <i>*Available on EPA's Website*</i>	12/2005
4.3	EPA Radiogenic Cancer Risk Models and Projections for the U.S. Population EPA 402-R-11-001. April 2011. <i>*Available at <a href="https://www.epa.gov/system/files/documents/2025-03/bbfinalversion_508-d.pdf">https://www.epa.gov/system/files/documents/2025-03/bbfinalversion_508-d.pdf</a>*</i>	04/2011
4.4	U.S. Environmental Protection Agency. <i>Methodology for Evaluating Beneficial Uses of Industrial Non-Hazardous Secondary Materials</i> . EPA 530-R-16-011, April 2016. <i>*Available at <a href="https://www.epa.gov/sites/default/files/2016-10/documents/methodology_for_evaluating_beneficial_use_of_secondary_materials_4-14-16.pdf">https://www.epa.gov/sites/default/files/2016-10/documents/methodology_for_evaluating_beneficial_use_of_secondary_materials_4-14-16.pdf</a>*</i>	04/2016

4.5	U.S. Environmental Protection Agency. Beneficial Use Compendium: A Collection of Resources and Tools to Support Beneficial Use Evaluations. EPA 530-R-16-009, June 2016. *Available at <a href="https://www.epa.gov/sites/default/files/2016-10/documents/beneficial_use_compendium_text_and_appendix_6-22-16.pdf">https://www.epa.gov/sites/default/files/2016-10/documents/beneficial_use_compendium_text_and_appendix_6-22-16.pdf</a> *	06/2016
4.6	Original TFI Request for Approval of Additional Uses of Phosphogypsum Pursuant to 40 C.F.R. § 61.206. *Available at Docket ID EPA-HQ-OAR-2020-0442*	10/15/2019
4.7	Appendix 2 PG Risk Assessment- Final amended Oct 15-19: Arcadis Canada Inc. Radiological Risk Assessment in Support of Petition for Beneficial Use of Phosphogypsum, 2019. *Available at Docket ID EPA-HQ-OAR-2020-0442*	10/15/2019
4.8	Appendix 3 Metals Risk Screening: Exponent, Human Health Risk Screening for Metal and Metalloids: Phosphogypsum in Road Construction, 2019. *Available at Docket ID EPA-HQ-OAR-2020-0442*	10/15/2019
4.9	Appendix 5 The Fertilizer Institute. Supplement to the October 11, 2019 TFI Phosphogypsum Reuse Petition: 2019 Radium-226 Results for U.S. Phosphogypsum Stacks. *Available at Docket ID EPA-HQ-OAR-2020-0442*	12/05/2019
4.10	Appendix 6 Economic Report: Policy Navigation Group, Economic Analysis of Phosphogypsum Reuse, December 2019. *Available at Docket ID EPA-HQ-OAR-2020-0442*	12/2019
4.11	Revised TFI Request for Approval of Additional Uses of Phosphogypsum Pursuant to 40 C.F.R. § 61.206 *Available at Docket ID EPA-HQ-OAR-2020-0442*	04/07/2020
4.12	Appendix 1 Summary of the Risk Analysis of the Use of Phosphogypsum (PG) for Road Construction. *Available at Docket ID EPA-HQ-OAR-2020-0442*	04/07/2020
4.13	Appendix 4a Response to EPA Questions issued on Jan 16, 2020. *Available at Docket ID EPA-HQ-OAR-2020-0442*	04/07/2020
4.14	Appendix 4b Responses to Second Set of USEPA Questions – Reclaimer. *Available at Docket ID EPA-HQ-OAR-2020-0442*	04/03/2020
4.15	Appendix 8 Administrative Record: List of Documents submitted as part of the revised TFI Petition. *Available at Docket ID EPA-HQ-OAR-2020-0442*	04/07/2020
4.16	Technical Review of The Fertilizer Institute Risk Assessment for Additional Use of Phosphogypsum in Road Base. Prepared for U.S. Environmental Protection Agency, Office of Radiation and Indoor Air by SC&A. *Available at Docket ID EPA-HQ-OAR-2020-0442*	06/10/2020
4.17	U.S. Environmental Protection Agency Review of the Radiological Risk Assessment in Support of Petition for Beneficial Use of Phosphogypsum Prepared for the Fertilizer Institute. *Available at Docket ID EPA-HQ-OAR-2020-0442*	10/14/2020
4.18	Withdrawal of Approval for Use of Phosphogypsum in Road Construction Federal Register Volume 86, No. 127, July 7, 2021, 35795. *Available on EPA's website*	07/07/2021
4.19	Email from Jonathan Walsh to Karen Bennett on September 9, 2022, requesting additional details related to laboratory tests, groundwater monitoring, and soil monitoring.	09/09/2022
4.20	Letter from Patrick Kane to Jonathan Walsh: “Response to EPA September 9, 2022, Request for Information; Small-Scale Pilot Project”	12/20/2022